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ABSTRACT

This paper discusses the use of social studies in developing critical and creative thought in preschool children. The social studies curriculum at any age level involves three principles: the development of an understanding of the social sciences, encouragement of acceptable socio-cultural behavior, and the development of critical and creative patterns of thought. This paper discusses ways in which the latter principle can be encompassed in the preschool curriculum. Creative thought is defined as thinking which leads to fresh inventions for the learner. Critical thought is described as differing from creative thought only in degree of concern for a particular solution. Problem solving is considered the best reflection of critical and creative thought. The paper describes ways in which problem solving skills are used or can be encouraged in the preschool child's everyday activities in the classroom. Also described are structured activities deliberately planned to encourage problem solving skills. A number of principles which should be considered in planning preschool learning experiences (particularly those designed to develop creative thought) are suggested. (BD)

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FURTHERING CRITICAL AND CREATIVE PATTERNS OF THOUGHT IN PRESCHOOL CHILDREN THROUGH THE SOCIAL STUDIES

by Mary Lee Marksberry

Social Studies as a curriculum area is commonly concerned with three major aims: developing important understandings of the social sciences, educating children into acceptable standards of socio-cultural behavior, and developing creative and critical patterns of thought.

These basic aims provide direction for what is done at all levels of the social studies curriculum--from the kindergarten and nursery school through senior high. The nursery school and kindergarten teacher has just as much responsibility for furthering these aims as does the senior high school history teacher. She has as much responsibility and perhaps more influence, for she is working with children in one of their periods of most rapid growth--the period from 4 to 6 years. According to Bloom, a characteristic can be more drastically affected by the environment in its most rapid period of growth, than in the lesser periods of change.[1] During the short span of two years, between four and six, 17% of the general achievement pattern demonstrated at age eighteen takes place.[2]

These findings suggest that nursery school and kindergarten can have far reaching consequences on a child's learning pattern. "Can have far reaching consequences" needs to be emphasized, for in order to have such consequences the learning environment must be carefully planned and ordered toward the desired outcomes. Haphazard experiences will not do the trick. Emphasis has to be placed on purposefully guided learning situations directed toward carefully thought through objectives. And these objectives in the social studies are pre-school sized versions of the three previously mentioned aims: developing important understandings of the social sciences, educating children

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into acceptable standards of socio-cultural behavior, and developing creative and critical patterns of thought.

Since time will not permit looking at what "purposefully guided experiences" means for each of these aims, only one will be considered--namely "developing creative and critical patterns of thought."

The definition of creative patterns of thought which is commonly accepted by those working with children, and which will be used here, refers to thinking that leads to fresh inventions for the learner. It does not have to lead to a product that has never been produced before. Instead the emphasis is upon it being first hand for the learner rather than taken second hand from someone else.[3] The resulting products may take one of three forms: that of a unique communication, that of a plan or proposed set of operations, and that of a set of abstract relations.[4] The pictures that children make, the clay figures they model, the stories they make up and dictate, and their characterizations in dramatic play and creative dramatics are examples of unique communications. Plans they make for cleaning up, for passing milk and for carrying out group activities in the classroom are examples of plans or proposed sets of operations. The generalizations they formulate after many experiences or the categories they decide upon to classify objects are examples of sets of abstract relations.

An analysis of creative thinking shows that the behaviors involved, or of which it is composed, are the same as those involved in thinking that is termed critical or reflective. The same intellectual abilities and skills are used in both. These include, among others, ability to interpret what is heard, read or seen with a high degree of accuracy; ability to break down a

problem situation into its constituent parts and see the relationship of the parts and the way they are organized; ability to use what is known in new situations without having to be told what to use or how to use it; and ability to appraise the extent to which various data are effective, accurate or satisfying in the solution of a particular problem. The difference between creative thinking and critical thinking appears to be primarily in degree rather than in actual make-up. Creative thinking puts more emphasis on imagination and intuition and less on predetermined, correct and conventional solutions.[5]

The essence of both creative thinking and reflective thinking is problem solving. The skills used in problem solving are the intellectual abilities and skills.[a] Thus opportunities for real honest-to-goodness problem solving in the classroom will make a contribution to the development of both creative thinking and reflective thinking. In similar fashion any opportunity for furthering the intellectual abilities and skills will contribute to both. It follows then, that many opportunities should be provided for children to solve problems if they are to grow in creative and critical thinking.

The pre-school child's day is full of opportunities to solve problems which fall in the curriculum area of social studies--practical problems, intellectual problems and interpersonal problems. Teachers, however, have to learn to recognize and select from the many, those opportunities which

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[a]Intellectual abilities and skills are sometimes labeled skills of critical thinking, skills of reflective thinking, problem solving skills, cognitive skills.

will be the most valuable for each child and for the total group. Some of the many sources for these opportunities may be mentioned:

Individual and group play with toys and equipment.

Use of materials.

Routine situations--such as putting on wraps, walking in the halls, resting, putting things away.

Playground activities.

Teacher structured group activities around particular topics.

Common group undertakings which offer opportunity for creative thinking. (Such as story telling, different types of dramatizations, dramatic play, mural making, etc.).

It must be kept in mind (as examples from these sources are discussed) that the learning situations described will more often than not contribute to the development of one or both of the other two basic aims of social studies--"Developing important understandings of the social sciences" and "Educating children into acceptable standards of socio-cultural behavior." Analysis, however, will be directed only to the aim being emphasized--"developing creative and critical patterns of thought."

Four year old Johnny was busy making a house. The walls were boxes and the roof a four foot board. The roof was not resting flush with the walls. On one side it extended about eighteen inches beyond the box it was resting upon. The teacher noticed this and was just in time to prevent Johnny from standing on the projecting end. "Are you sure that the board is safe enough to stand on?" she asked. "Look what happens when I put my foot on it. What would happen to you if you stood on it?" "I'd fall down." "Yes. But try standing on the other end." Johnny climbed upon the other end of the roof. "I don't fall down here," he announced. "Why not?" Johnny climbed down and looked at both sides intently for a few seconds. Then without saying a word he pushed a box under the end which was extended and climbed upon it triumphantly.

Johnny's teacher had seen the opportunity for helping him grow in critical (and creative) thinking. She had provided help by asking questions that brought the problem to his attention and caused him to think it through. The thinking he did gave him practice in three of the intellectual abilities mentioned above--ability to interpret what is heard, read or seen with a high degree of accuracy, ability to break down a problem situation into its constituent parts and see the relationship of the parts and the way they are organized, and ability to use what is known in new situations without having to be told what to use or how to use it.

This is an example of how a teacher can guide children into furthering critical and creative behavior. If teachers do all the reasoning for children and constantly issue commands children do not think. If, on the other hand, the teacher helps them figure out relationships and consequences, they will be developing skills that will enable them to continually grow in the power to think both critically and creatively for themselves.

Experiences which children have in taking turns and sharing equipment when playing as a member of a group give them opportunity to further certain intellectual abilities through learning why their actions cause certain responses in others.

Patty was playing on the slide with several other children. After a few minutes she complained to the teacher that the other children were pushing and hitting her. The teacher had noticed that Patty, instead of going to the end of the line to wait her turn, pushed in front of the other children each time she joined the group waiting to go down the slide. She could have simply told Patty to go to the end of the line and wait her turn. This would have stopped the trouble for the time being, but it would not have helped Patty grow in her thinking abilities or in her understanding of what was causing the other children's actions toward her. Instead, she took

advantage of the opportunity and called Patty and Julie, one of the children who had hit her, aside and asked questions which led them to see why things had happened as they did. The conversation went something like this:

Teacher: Julie, why were you pushing Patty?

Julie: She took my turn.

Teacher: What makes you say that?

Julie: She went down the slide then got in front of me.

Patty: But I wanted to go down again.

Julie: So did I.

Teacher: Think a minute, Patty. What did we say when we were talking about playing on the slide?

Patty: To take turns.

Teacher: Were you doing this?

Julie: No, she wasn't. She got in front of me.

Teacher: How would you feel if Julie got in front of you when she wanted to go down the slide?

(Patty hung her head)

Why do you suppose Julie hit you?

Patty: (Still hanging her head) She didn't want me to take her turn.

Teacher: I imagine that's right. (Then turning to Julie) How do you suppose Patty felt when you hit her?

Julie: Mad at me.

Teacher: Would that help take care of the problem?

Julie: No.

Teacher: What could you have done?

Julie: Told her to take her turn.

Teacher: Yes, and that could have been a way of taking care of the problem without me having to help. But I'm sure you will take care of problems like this from now on!

The girls went back to the slide and nothing more was heard from them. The teacher's intervention made it possible for Patty to understand that her own pushing ahead had brought trouble to herself and others, and helped her to see what she could do to prevent it. It also helped Julie see that her way of solving the problem only made things worse. In short, the teacher had helped Patty and Julie analyze the situation and see what needed to be done to control their behavior. They had been helped to work through a problem.

Problems which are constantly arising in the use of materials can also provide opportunities for children to grow in thinking power. It was four-year-old Tommy's third attempt to arrange a collage on his paper. But each time he had failed to make the parts stick to the paper instead of his hands. "I wonder why the pieces of cloth and the feather don't stick to the paper. Maybe if we thought about it we could find out," said the teacher. Tommy looked at both hands sticky with library paste. "There's paste on my hands," he said. "Yes. I wonder what we can do about that?" Tommy looked around the room at the other children who were pasting with one finger and using the rest of their hand to put the parts in place and press them down. But even this much direct contact with the paste appeared to be an unsatisfactory solution to him. He thought a minute, went to the sink, washed his hands and then picked up a plastic spoon from the doll house. Using the handle as a paste stick he quickly finished the collage. Here a few questions by the teacher helped Tommy discover what to do to gain the results he wished and in the process helped him to further desirable thinking skills.

Even the routine things that are done in nursery school and kindergarten provide opportunities for problem solving. At the beginning of the year one teacher had carefully explained that voices were to be kept soft when walking in the hall so other children who were studying would not be disturbed. Soon similar situations were used as the basis for questioning which would require children to search out the reasons for themselves. When trips were taken questions such as "What will we need to remember as we walk down the streets?" "Why must we walk quietly?" stimulated children to seek out the reasons and in the process to further some of the creative and critical thinking abilities.

The playground offers constant opportunities for helping children solve problems and through problem solving grow in critical and creative thinking. Interpersonal problems, such as "How will we plan so everyone has a turn at the playground apparatus?" "How can we make new children feel happy in our school?" and practical problems such as "How can we keep the planks on our hill (a child-made incline) from slipping off the wooden boxes?" "How can we keep the train (which had been made by tying tricycles, wagons, cars, etc. together) from coming apart?" can be solved by young children if they are helped by the teacher's questioning and comments to discover facts, relate causes and to carry through to conclusions.

The learning situations discussed up to this point have been examples of those which arise out of the free, spontaneous, on-going activities in the nursery school and kindergarten. The teacher's specific guidance in each case was directed toward a particular situation as it naturally arose in the classroom but was governed by, and rooted in her knowledge and good judgment in the use of some presently accepted principles for planning learning experiences to develop skill in thinking:[6]

1. Utilize problems that are real to students.

   Each teacher was following this principle. The situations they utilized were problems because of two characteristics:

   1) They were of concern to the children involved. Each child felt perplexed or frustrated in reaching a goal important to him.

   2) There was more than one possible solution so that a choice had to be made.

2. In giving children initial experience in solving problems set the situation so that the student will follow the steps of thinking in their normal sequence.

   In the process of thinking an individual with past experience faces a situation that is new to him. This results in a block or tension because the individual cannot handle it through his usual ways of reacting. To resolve the tension he uses knowledge from past experience to formulate guesses (hypotheses). He tests these hypotheses by experimenting, asking questions, observing, listening, and the like and finally draws conclusions which may resolve the tension and disturbances. These teachers, through skillful questioning guided the children so they followed these steps in their logical sequence.

3. Let children think through the experience of solving problems for themselves.

   Each teacher left the actual solving up to the individual children. Her role was to question and support but not to do the thinking and solve the problem. That was left for each child.

4. Give attention to the steps of problem solving which require attention when they are needed.

   If a teacher sensed that any particular step was giving more trouble than the others she concentrated giving help on that aspect and at the particular time it was needed.

5. Help those students who must be taught step by step to analyze a problem, but give those who are able to make large mental jumps a chance to do so.

   Tommy, after questions which helped him define his problem did not need additional help. He was ready for a big mental jump and the teacher was wise enough to let him take it.

6. Help children discover a number of possible solutions or a number of possible facts and conditions that have to be considered and have practice suggesting various possibilities when they are attacking problems.

   Doing this will contribute to the development of creative thinking. It will bring about flexibility and that very important attitude that there is not just one right way.

Other activities which provide possibilities for furthering creative and critical thinking are those which the teacher structures for the total group at one time. These are the activities which are a part of the units of work, the group discussions on current or seasonal interests, and the activities structured for helping children develop social science generalizations.

As an example, consider one group of advanced kindergarten children who raised chickens. Some chickens were to be given to the children by a local hatchery, but so the children would have the experience of watching the chicken grow in the egg, two small incubators, holding two eggs each, were set and brought

into the room when the eggs which were to produce "their chickens" were set. One egg was observed by the use of a candling device, before it was put in the incubator. The children were encouraged to discuss what they saw and to make guesses about what would happen. Their observations were recorded in a diary and their guesses were recorded on a chart. Every few days the eggs in the incubator were examined by the same candling device and after a discussion of what was seen entries were dictated for the diary. Also, following the examination, the guesses originally made were discussed and revised as needed. By the time the eggs hatched the children had arrived at a number of conclusions. These conclusions were compared with pictures the teacher had found in reference books in the library to see if their findings agreed with findings by other researchers.

The questions that were raised when the eggs were set in the incubator were also recorded. To help the children answer these questions the teacher brought books to the discussion periods and explained very carefully how she was using each book to help them find answers to their questions. After locating what appeared to be pertinent information by using either the table of contents or the index she read it aloud and helped the children evaluate whether it helped them answer any of their questions.

Before the eggs hatched and the other chickens were brought to the classroom the children had several sessions of earnest consultation with the science teacher about the right home and right food for them. The many questions they asked were listed on the chalkboard. Several meetings with much discussion were required to answer them.

After the chickens arrived each child served several turns as caretaker. It was common practice each morning while the caretakers for the day were cleaning the cage and feeding and watering the chicks, for older brothers and

sisters, mothers and teachers to stop for a look at the chickens. On these occasions the kindergarteners assumed responsibility for answering the questions asked. During each day there was time set aside to watch and also a time to ask questions and search for answers.

The culmination came when a program was held for the mothers prior to giving the now quarter-grown chickens to the custodian. Before the program, the children discussed what information should be given their mothers. Then each child volunteered to be responsible for one part of the information.

It is not difficult to see the many experiences these children were having in thinking critically and creatively. The guesses they made about the eggs were really hypotheses. These hypotheses were tested by comparison with the data they gathered from the examination of the eggs and were revised, retained or rejected in light of what they were finding. In going through each of these steps they used various intellectual abilities and skills and so were furthering the skills of critical and creative thinking.

Interpreting information, determining its relevancy for particular purposes, organizing information to answer questions about care of the chickens and organizing small reports to present at the program were other examples of activities where the children practiced critical thinking.

A last source of opportunities to be mentioned for furthering creative and reflective thinking are group activities which give children chances to express their own ideas, feelings and experiences through unique communications. Most of the content which goes into these expressions is not rigorously predetermined by the requirements of the task. The children have the opportunity to select what will be used and to determine how it will be used. Such activities as dramatic play, flannel board dramatizations, story telling doll dramatizations, picture making and mural making exemplify this category.

Pelle's New Suit[7] had been used by one group of children in a study of "Clothing We Wear." After the teacher read the book to the children she placed it on the reading table along with the story telling dolls. Soon a small group of children had gathered around the table and were dramatizing the story through manipulation of the dolls. The plot was intact but the conversation was each child's own--enriched by the concepts and understandings gathered from the unit on clothing.

Ask Mr. Bear[8] was read to another kindergarten class studying animals and how they help us. It was such a favorite that the various characters were drawn and colored on manila paper. Later these were cut out and fastened to dowel sticks to make simple stick puppets. A table was turned on its side and the children knelt behind it to present their puppet play to the nursery school children.

In still another classroom the children planned a mural on the seasons. They began by recalling, through group discussion, what changes each season had brought. Once started, suggestions were plentiful. The teacher wrote these suggestions on a large piece of tagboard-- "so we can remember them." After the list was completed one basic rule was worked out by the group: the picture belongs to everybody so what is put on it must be talked over with the other children and the teacher. Names were put by the list previously made and constituted a simple plan for making the mural. When there was an argument the list was the deciding factor.

In planning for and with children for activities similar to these a few principles beyond those previously given for problem solving help define conditions which appear to contribute directly to creative thinking:[9]

1. Do not put children on a time limit. Introduce problem solving situations when there is plenty of time to explore them. Non rigid solutions are produced more frequently when

subjects are unhurried. It takes time for any group to solve problems and young children are no exception. Even though the problems they tackle are simple, ideas have to be presented and explored before decisions can be made. Problem solving must be the work of the children not manipulation by the grown-up in charge.

2. Avoid anxiety and personal threat to force children into participating. Children should be encouraged and invited, but not forced to take part.

   Sometimes this means many invitations before one is accepted but when the child does take part he will likely continue to participate. If he is forced to participate, before he is ready, he may be driven even further into himself.

3. Accept (and see that each child in the group does likewise) every contribution, regardless of how far-fetched or ridiculous it may seem. Be sure that all of these are carefully evaluated later. If a child feels that everything he says is going to be subjected to immediate critical evaluation he will hesitate to put his thoughts before the group and as a result many creative ideas will be lost and children will be denied an opportunity to grow in self confidence. Accept all ideas during the exploring period. After ideas no longer come, go over each one in an objective fashion--apart from the originator--and evaluate its feasibility in light of the combined knowledge of the group. A very important point to remember during this rigorous scrutiny is "We don't talk names." The idea is the focus. It is divorced from its originator.

4. Ask questions that cause children to think about similar experiences or related situations and take time to hear out the answers. Use the clues to further questioning.
5. Encourage questioning. If you do not know the answer say so. Grown-ups aren't supposed to know everything. But they can say, "I think I might help you to find out." And then follow through.
6. Tell children that everyone makes mistakes when they are thinking and solving problems, and that it is to be expected. Point out some of your own mistakes when they occur.

Social studies in the nursery school and kindergarten can provide far reaching consequences in the furthering of critical and creative patterns of thought if purposefully guided experiences are provided. This article has suggested and discussed a few of these.

Footnotes

[1]Benjamin S. Bloom, Stability and Change in Human Characteristics (New York: John Wiley and Sons, Inc., 1964), p. 210.

[2]Ibid., 110

[3]Margaret Mean, "Creativity in Cross-Cultural Perspective" Creativity and Its Cultivation, ed. Harold H. Anderson (New York: Harper and Row, 1959), p. 223.

[4]Benjamin S. Bloom (ed.), Taxonomy of Educational Objectives, The Classification of Educational Goals. Handbook I: Cognitive Domain (New York: David McKay Co., Inc., 1956), pp. 163-164; 168-172.

[5]Mary Lee Marksberry, Foundation of Creativity (New York: Harper and Row, 1963), p. 8.

[6]Ralph W. Tyler, Basic Principles of Curriculum and Instruction (Chicago: University of Chicago Press, 1950) pp. 44-46.

[7]Elsa Beskow, Pelle's New Suit (New York: Harper and Brothers, 1934).

[8]Marjorie Flack, Ask Mr. Bear (New York: The Macmillan Co., 1932).

[9]Marksberry, loc. cit., pp. 136-137.